IN THE CLAIMS:

Please amend as follows:

2. (Amended) Recording material according to claim 1, characterised in that the dye changes its spatial arrangement in such a manner that it lowers its sensitivity to the actinic light by from 10 % to 100 % based on the sensitivity prior to recording of the first hologram.

3. (Amended) Recording material according to claim 1, characterised in that the dye, of which there is at least one, changes its spatial arrangement in such a manner that it lowers its sensitivity to the actinic light in that it flips into the direction perpendicular to the polarising direction of the actinic light and its molecular longitudinal axis comes to lie at an angle with the polarising direction of the actinic light of from 10° to 90°.

4. (Amended) Recording material according to claim 1 characterised in that it has an optical density ≤ 2 in a wavelength range of from 390 to 800 nm.

5. (Amended) Recording material according to claim 1 characterised in that it has an irradiated thickness of ≥ 0.1 mm.

6. (Amended) Recording material according to claim 1 characterised in that it contains predominantly polymeric or oligomeric organic material.

7. (Amended) Recording material according to claim 1 characterised in that the optical density of the recording material is adjusted *via* the concentration of the dye.

8. (Amended) Recording material according to claim 1 characterised in that the optical density is adjusted *via* the molar extinction coefficient of the dye.

9. (Amended) Recording material according to claim 1 characterised in that it is an amorphous member selected from the group consisting of polymeric organic, and oligomeric organic material.

10. (Amended) Recording material according to claim 1 characterised in that the electromagnetic radiation is light in the wavelength range of 390 to 800 nm.

11. (Amended) A method of using the material of claim 1 comprising recording of at least three volume holograms, at one position of the storage material.

12. (Amended) A method of using the material of claim 1 comprising angle-dependent reading, of volume holograms.

13. (Amended) Holographic volume storage medium comprising the recording material according to claim 1.

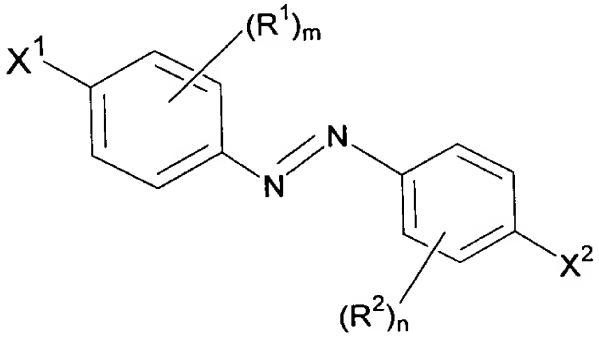
14. (Amended) Holographic volume storage medium according to claim 13, characterised in that the recording material contains one or more unsupported objects of any desired form contained in a multilayer structure.

15. (Amended) Process for the preparation of the holographic volume storage medium according to Claim 13 comprising injection-moulding process in the range up to 300°C.

Please Cancel Claims 16, 17, 18 and 19.

Please add the following claims:

--20. Polymers having chemically bonded dyes of formula (I)



(I)

wherein

R^1 and R^2 each independently of the other represents hydrogen or a non ionic substituent, and

R^1 may additionally represent $-X^{1'}-R^3$,

m and n each independently of the other represents an integer from 0 to 4,

X^1 and X^2 represent $-X^{1'}-R^3$ and $X^{2'}-R^4$, respectively, and

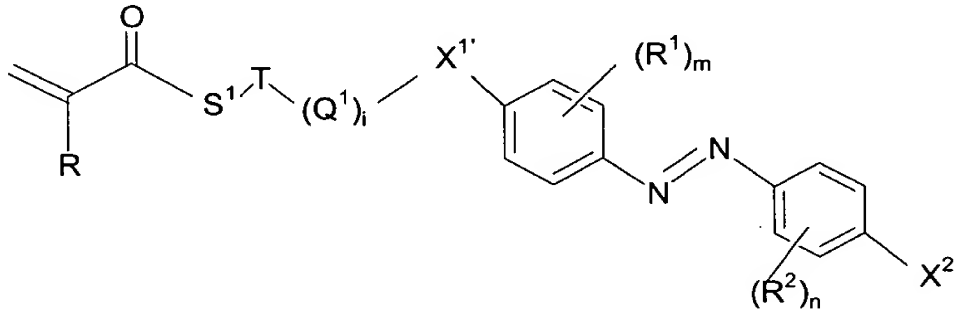
$X^{1'}$ and $X^{2'}$ represent a direct bond, -O-, -S-, $-(N-R^5)-$, $-C(R^6R^7)-$, -(C=O)-, -(CO-O)-, $-(CO-NR^5)-$, $-(SO_2)-$, $-(SO_2-O)-$, $-(SO_2-NR^5)-$, $-(C=NR^8)-$ or $-(CNR^8-NR^5)-$,

R^3, R^4, R^5 and R^8 each independently of the others represents hydrogen, C_1- to C_{20}-alkyl, C_3- to C_{10}-cycloalkyl, C_2- to C_{20}-alkenyl, C_6- to C_{10}-aryl, C_1- to C_{20}-alkyl-(C=O)-, C_3- to C_{10}-cycloalkyl-(C=O)-, C_2- to C_{20}-alkenyl-(C=O)-, C_6- to C_{10}-aryl-(C=O)-, C_1- to C_{20}-alkyl-(SO_2)-, C_3- to C_{10}-cycloalkyl-(SO_2)-, C_2- to C_{20}-alkenyl-(SO_2)- or C_6- to C_{10}-aryl-(SO_2)-, or

$X^{1'}$-R^3 and $X^{2'}$-R^4 may represent hydrogen, halogen, cyano, nitro, CF_3 or CCl_3,

R^6 and R^7 each independently of the other represents hydrogen, halogen, C_1- to C_{20}-alkyl, C_1- to C_{20}-alkoxy, C_3- to C_{10}-cycloalkyl, C_2- to C_{20}-alkenyl or C_6- to C_{10}-aryl.

21. Polymer according to claim 20, characterised in that it contains at least one monomer of formula (II)



(II)

wherein

R represents hydrogen or methyl, and

the other radicals are as defined above

represents hydrogen or methyl.--